

REMARKS

Claim 60 is amended. Claims 60-62, 64 and 66 are pending in the application.

Claim 60 and its dependent claims 61-62, 64 and 66 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner indicates that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention at the time the application was filed. The Examiner bases such contention upon the claim 60 recited providing O₂ into a reactor without passing through an ozone generator, where such is not specifically taught in the specification. Claim 60 is amended to remove the recited phrase 'without passing through an ozone generator' and reinstate previous terminology "without feeding ozone into the reactor" which was formerly added by amendment and rejected by the Examiner under § 112, first paragraph, as failing to comply with the written description requirement. Such is hereby reinstated as being preferred language in the event of appeal

The claim 60 recited without feeding ozone into the reactor is fully supported by the specification. Surely the Examiner must recognize that applicant is not required to list in the specification each and every feature which is not present, each and every parameter which is not utilized, and each and every reagent or other substance which is not provided into the reactor. In the present instance the Examiner has based rejections on prior art references which utilize ozone in deposition processing and has made every effort to set forth a 112 rejection of applicant's claims in order to attempt to read out the recited limitation of "without feeding added ozone into the reactor". However, one of ordinary skill in the art would clearly recognize from applicant's specification that ozone is not being fed

into the reactor during applicant's disclosed process. Therefore the subject matter of claim 60 is fully described in the specification such that one skilled in the relevant art would be fully apprised that the inventor had possession of the claimed invention at the time the application was filed. Claim 60 therefore meets the requirements of § 112, first paragraph, and complies with the written description requirement.

In addressing the prior art rejections below, applicant sets forth arguments without a reading out of the limitation of an absence of added ozone. The Examiner is reminded that not only must each and every element of a claim be analyzed, but the claim must also be considered as a whole when determining patentability. Accordingly, reading out of any element of a claim is improper.

Claims 60-62, 64 and 66 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nguyen (U.S. Patent No. 5,356,722); in view of Ikeda (U.S. Patent No. 5,593,741); and Wolf, Silicon Processing for the VLSI Era, Vol. 1, pp. 166-167. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Each of these three factors must be shown in order to establish a *prima facie* case of obviousness.

Claims 60-62, 64 and 66 are allowable over Nguyen, Ikeda and Wolf for at least the reason that the references, individually or in combination, fail to disclose or suggest each and every element in any of those claims, fail to provide a reasonable expectation of success and fail to provide motivation for modification.

Independent claim 60 recites a semiconductor processing method of deposition of SiO₂ without feeding ozone into a reactor and recites specific deposition parameters. Each of Nguyen and Ikeda disclose methods of utilization of ozone during deposition. Accordingly, the combination of Ikeda and Nguyen does not disclose or suggest the claim 60 recited deposition without feeding ozone into the reactor. Nor does the combination of Nguyen and Ikeda disclose or suggest the recited parameters for depositing without feeding ozone into the reactor. Wolf is indicated as being relied upon as disclosing reactor aspects and does not contribute toward suggesting the recited deposition conditions or absence of ozone.

The combination of Nguyen and Ikeda, each of which discloses deposition utilizing ozone, does not provide a reasonable expectation of the recited deposition of SiO₂ without feeding ozone into the reactor utilizing the recited set of parameters. Nor does the combination of Ikeda and Nguyen provide a motivation for modification to perform deposition without feeding ozone into the reactor. The cited Wolf reference does not contribute toward these issues. Accordingly, the combination of Ikeda, Nguyen and Wolf fails to teach or suggest each and every element of claim 60, fails to provide a basis for a reasonable expectation of success and fails to provide motivation for modification.

In addressing applicant's previous arguments at page 8 of the present Action, the Examiner indicates that "without evidence to the contrary, the process of Nguyen would result in the "same layer" as the instant specification". First, even if the Examiner's statement regarding the same layer were true, such is irrelevant in determining the patentability of the present method claim. It is the method which must be novel and non-obvious relative to the prior art. Second, it is the Examiner's burden to establish a *prima*

facie case of obviousness by a preponderance of the evidence (MPEP § 2142). Applicant has no duty to provide evidence to the contrary until such a *prima facie* case has been established.

The Examiner further indicates overlapping ranges between the prior art and the present claims. However, the prior art references clearly set forth parameters utilized in the presence of ozone. No guidance or suggestion is provided as to parameters to be utilized in an absence of ozone other than those set forth in applicant's own specification. The Examiner further indicates that although the gas flow is higher in Nguyen "the volume of gas reflects the size of the chamber and not on the chemistry of the deposited layer". Applicant first notes that gas flow is a rate not a volume. Second, nothing in either of the references or applicant's own specification indicates the relative sizes of the chambers. Accordingly, the Examiner's statement is pure speculation and not based on any evidence whatsoever.

For the reasons discussed above, claim 60 is allowable over the prior art. Dependent claims 61-62, 64 and 66 are allowable over the art of record for at least the reason that they depend from allowable base claim 60. Accordingly, applicant respectfully requests formal allowance of pending claims 60-62, 64 and 66 in the Examiner's next action.

Respectfully submitted,

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